

## ABSTRACT

This invention discloses a system and method for inspecting objects, the method including creating a reference image for a representative object, the reference image comprising an at least partially vectorized first representation of boundaries within the image, acquiring an image of an object under inspection comprising a second representation of boundaries within the image, and comparing the second representation of boundaries to said at least partially vectorized first representation of boundaries, thereby to identify defects.

A method and system for image processing in a software environment, the method including providing to a software based image processor a combination of user defined regions and defect triggers received from a hardware processor, and inspecting each of the user defined regions and regions surrounding hardware defect triggers each with a dynamically chosen set of inspection algorithms is also disclosed.